

What is Claimed is:

1. A vulcanizable rubber composition comprising a vulcanizable rubber and a precipitated silica having the following physico chemical properties:

| | |
|---|-----------------------------|
| BET surface area | 35 to 350 m ² /g |
| BET/CTAB surface area ratio | 0.8 to 1.1 |
| Pore volume, PV | 1.6 to 3.4 ml/g |
| Silanol group density (V ₂ = NaOH consumption) | 6 to 20 ml |
| Average aggregate size | 250 to 1500 nm |
| CTAB surface area | 30 to 350 m ² /g |
| DBP value | 150 to 300 ml/100 g |
| V ₂ /V ₁ by Hg porosimetry | 0.19 to 0.46 |
| DBP/CTAB | 1.2 to 3.5. |
2. The vulcanizable rubber composition of claim 1, wherein the particle fineness of said precipitated silica is less than or equal to 11 μ m.
3. The vulcanizable rubber composition of claim 1, wherein the particle fineness of said precipitated silica is less than or equal to 10 μ m.
4. A vulcanized rubber compound comprising a precipitated silica having the following physico chemical properties:

| | |
|---|-----------------------------|
| BET surface area | 35 to 350 m ² /g |
| BET/CTAB surface area ratio | 0.8 to 1.1 |
| Pore volume, PV | 1.6 to 3.4 ml/g |
| Silanol group density (V ₂ = NaOH consumption) | 6 to 20 ml |
| Average aggregate size | 250 to 1500 nm |
| CTAB surface area | 30 to 350 m ² /g |
| DBP value | 150 to 300 ml/100 g |
| V ₂ /V ₁ by Hg porosimetry | 0.19 to 0.46 |
| DBP/CTAB | 1.2 to 3.5. |

5. The vulcanized rubber compound of claim 4, wherein the particle fineness of said precipitated silica is less than or equal to 11 μm .
6. The vulcanized rubber compound of claim 4, wherein the particle fineness of said precipitated silica is less than or equal to 10 μm .